

Recovery Plan Action Status

Plan Name: Recovery Plan for the Big Island Plant Cluster

Plan Status: Final

Plan Date: 26-Sep-96

Lead Agency: USFWS

Lead Office: Pacific Islands Fish And Wildlife Office

(808)

(792-9400)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), `Oha wai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), `Anunu (Sicyos alba)	1	111	Locate, verify and delineate all extant wild populations	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, U.S. Geological Survey, Biological Resources Division, National Park Service, Ola'a Kilauea Management Group	Research: Population Surveys	Contract	This is an ongoing action, as the status of the species and their threats change constantly. NOTE: For all tasks in this recovery plan, only the 13 species in the Big Island addendum are being addressed. The other 22 are addressed in the original Big Island plan.

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Alani (Melicope zahlbruckneri), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), No common name (Tetramolopium arenarium), No common name (Delissea undulata), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei)	1	12222	Control gastropods, insects, etc. found to be harmful to listed species	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service, Private landowners	Management: Predator and Competitor Control	Contract	Effective control methods for most gastropods and insects in Hawaii are not yet developed for use in natural forest habitats. Methods are in the development phase for gastropods and some insect pests.

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	2	33	Prepare sites and augment wild populations	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service, Private landowners	Management: Reintroduction	Contract	Augmentations are occurring for some species on NPS, OKMG, DLNR, and various private landowners lands, and are planned on DOD lands.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	2	34	Maintain, monitor and evaluate outplantings	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service, Private landowners	Management: Reintroduction	Contract	This is an ongoing action, as the status of the species and their threats change constantly, and is currently not occurring as frequently as it should - at least once a year.

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	41	Select new population sites, and obtain approval and long-term protection for site	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service	Management: Planning	Internal Administrative	Sites have been selected on NPS, NWR, OKMG, DLNR, DOD, and various private landowners lands for reintroduction.

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Oha wai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	42	Control threats to plants at new sites	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service	Management: Habitat Maintenance and Manipulation	Contract	Threat control is occurring on NPS, NWR, OKMG, DLNR, DOD, and various private landowners lands for reintroduction.

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	43	Transplant selected material	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service	Management: Reintroduction	Contract	Reintroduction is occurring on NPS, NWR, OKMG, DLNR, DOD, and various private landowners lands for reintroduction. However, more reintroductions are needed to recover most of the species in this plan.

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	1	44	Maintain, monitor and evaluate new populations	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Department of Defense, National Park Service	Management: Habitat Maintenance and Manipulation	Contract	This task is ongoing whenever new populations are located.

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Oha wai (Clermontia drepanomorpha), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	51	Validate the number of individuals and populations necessary for recovery of each taxon	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Hawaii Department of Land and Natural Resources, U.S. Geological Survey, Biological Resources Division	Research: Population Surveys	Contract	

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	52	Refine/revise downlisting and delisting criteria, as necessary	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division	Management: Planning	Contract	

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Alani (Melicope zahlbruckneri), Kiponapona (Phyllostegia racemosa), Hau kuahiwi (Hibiscadelphus hualalaiensis), No common name (Neraudia ovata), Lo'ulu (Pritchardia schattaueri), 'Ohawai (Clermontia drepanomorpha), No common name (Tetramolopium arenarium), No common name (Delissea undulata), A'e (Zanthoxylum dipetalum var. tomentosum), Haha (Cyanea platyphylla), No common name (Phyllostegia velutina), Hala pepe (Pleomele hawaiiensis), Hau kuahiwi (Hibiscadelphus giffardianus), Hilo ischaemum (Ischaemum byrone), No common name (Silene hawaiiensis), No common name (Mariscus fauriei), No common name (Phyllostegia warshaueri), 'Anunu (Sicyos alba)	3	53	Evaluate species for downlisting and delisting	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division	Management: Planning	Internal Technical Assistance	